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SURGICAL CASES OCCURRING IN THE MASSACHUSETTS GENERAL HOSPITAL. SERVICE OF DR. HENRY G. CLARK.—NO. V.

Reported by Mr. RICHARD H. DERBY.

[Communicated for the Boston Medical and Surgical Journal.]

CASE I.—Patient, J. T., aged 15, entered the Hospital April 5th, 1859. For eight years previously he had suffered from inflammation of the left knee-joint. Until a year before entrance he was able to walk upon the limb. At that time he received a blow upon the knee from a stick, and had not been able to bear any weight upon it since. The knee was swollen and especially prominent over the condyles of the femur. The tibia was dislocated backwards. There was slight tenderness on pressure over the external condyle. The hamstrings were slightly contracted, and there was imperfect control of the limb. The thigh and leg were much emaciated. While walking, with the help of a cane, the toes of the left foot just touched the ground. Patient was thin and feeble, with a poor appetite.

April 12th.—A consultation was called, and resection of the joint was advised.

16th.—Operation by Dr. Clark. Patient was etherized and taken to the operating theatre. A semicircular incision was made from condyle to condyle of the femur, reaching the tubercle of the tibia. The integument, including the patella, was then turned back, and the joint exposed. The ligaments were divided, and an inch and a half of the femur and half an inch of the tibia removed by the saw. The cartilages of the joint were found to be ulcerated. Several vessels were tied, the patella was left *in situ*, and the flaps were brought together by five sutures. The whole limb was then bound firmly in a gutta percha trough. Water dressings.

17th.—Pulse 150. No urine voided. Tongue white and dry. Considerable pain in the knee. ℞. Elix. opii., spts. ether. nit., āā ʒss. M. At night.

18th.—Kept under the influence of opium. Urine free. Pulse 124. Tongue more moist. ℞. Tinct. verat. vir., gtt. iv.; elix. opii, gtt. xx. M. Every three hours.

April 19th.—Comfortable night. Pulse 104. Slight purulent discharge from wound. Broth for dinner.

22d.—Very little pain. Free discharge from the wound. All sutures, and all but one ligature, removed. Appetite good.

30th.—Quite comfortable. Bowels kept open by medicine.

May 9th.—Edges of wound approximating.

16th.—Granulations have bridged over in several places.

19th.—General condition excellent. The limb was taken out of the splint and washed; the splint was then carefully renewed.

27th.—Gutta percha splint removed, and a Goodwin substituted. Turner's cerate over wound.

June 7th.—Limb removed from apparatus and laid on a pillow.

10th.—House diet.

23d.—The limb was carefully wrapt in sheet lint and placed in a starch bandage, with a pasteboard ham splint.

30th.—Allowed to walk about on crutches.

July 4th.—℞. Pil. ferri iodid. One ter die. To go out.

25th.—The bandage was cut longitudinally at the side, that it might be removed at pleasure. Discharged, by request, well.

March 28th, 1860, the following note was received from patient: "My leg is so well that I do not have to use crutches or cane."

Case II.—Patient, R. H. S., aged 16, entered the Hospital April 14th, 1860. He was small for his age and not of robust appearance. Five years before entrance he injured his right knee by a fall. From that time he was lame. Eighteen months before entrance, he was sick and obliged to keep his bed; at that time the knee became swelled and painful, and confined him in bed for three or four months. When he came out, the leg was stiff, in a straight position, and from that date it remained so. The leg was slightly dislocated outwards and bent on the thigh, so that the popliteal space was unduly prominent. No pain, tenderness, redness, heat or swelling in the knee. There was apparent anchylosis; but attempted motion caused pain.

April 20th.—Under ether, considerable motion was observed in the joint.

21st.—Operation by Dr. Clark. Patient was etherized, and a semilunar incision was made from one condyle of the femur, below the patella, to the other; the joint was opened, and the extremities of the femur, tibia and fibula dissected up a short distance and sawn off. Their surfaces were found extensively ulcerated. The patella was left. The limb was then placed in a straight position, and the edges of the wound brought together by sutures. A splint, bridged over below the knee, was then adjusted to the posterior aspect of the limb. ℞. Liq. morph. sulph., f ʒ i. p. r. n.

23d.—Edges of wound in good apposition. Considerable effusion of blood under the flaps. Cold water dressings. ℞. Hospital fever mixture, f ʒ i. every three hours. Poultice over wound.

May 1st.—For a few days past healthy suppuration has gone on in wound. Chicken and soup.

6th.—Considerable sloughing about the edges of the wound. ℞. Acid. nitric., f ʒ i.; aquæ, f ʒ iij. M. Painted over the edges of the wound. Beefsteak. Milk punch.

8th.—Appetite good. Substitute sol. sod. chlorinat. for acid nitric.

10th.—℞. Decoct. cinchonæ flav., f ʒ ij., night and morning. ℞. Pulv. cinchonæ sprinkled over wound.

16th.—Wound more healthy.

22d.—Wound granulating. ℞. Argent. nitrat., over granulations. ℞. Quiniæ sulphat., gr. i., four times a day.

28th.—Healthy granulations observed over wound. The padding of the splint frequently changed. Considerable stiffness noticed between fragments.

June 15th.—Patient steadily improving. Wound nearly closed. Nearly able to raise the leg without assistance. Appetite good.

21st.—Limb laid on a pillow.

July 6th.—A starch bandage was applied from foot to groin.

7th.—Moving around on crutches.

18th.—Firm union at the knee. Some slight superficial ulceration of the cicatrix. Discharged well.

Case III.—Patient, M. R., aged 8, entered the Hospital January 26th, 1861. She was a weak, puny, scrofulous looking little creature, unable to give any account of her past condition. The right knee was swollen, apparently in an acutely inflammatory state, very painful and exceedingly sensitive to the touch. The leg was contracted and drawn up on the thigh. She could not tolerate the least examination of the limb.

Jan. 28th.—Appetite poor. Excessive pain in the affected knee. ℞. Sol. morph. sulphat., gtt. xxv. ℞. Vini ferri, f ʒ i., night and morning.

30th.—Less pain. Appetite improving.

Feb. 9th.—General condition much improved.

March 17th.—Motion in joint increasing.

April 16th.—Some improvement; walking around the ward with crutches, the affected leg drawn up.

May 4th.—Operation by Dr. Clark. Patient was etherized, and the articular cavity of the knee laid open in the usual manner. The articular surfaces appeared smooth; the tissues about the joint were very vascular. Four different portions from the condyles of the femur were sawed off, i. e., about an inch and a half anteriorly and three quarters of an inch posteriorly. A section, a third of an inch thick, was likewise removed from the head of the tibia. The flaps were brought together by sutures and adhesive straps. The limb was placed in a well padded splint. Cold water dressings. ℞ Tinct. op. camph. at night. Brandy p. r. n.

5th.—Pulse 176. Some nausea and vomiting.

May 6th.—Pulse 172. Chicken broth. Brandy and water p. r. n. Warmth to feet. Spongio-piline (hot rum and water) to epigastrium. ℞. Elix. opii, gtt. xx. at night.

7th.—Rennet whey.

9th.—Wound looking well.

11th.—Appetite good. Leg in good position.

June 9th.—Apparently some displacement. Leg placed in a Desault's apparatus.

July 5th.—Doing finely. Appetite continues good.

August 13th.—Improving. Wound nearly healed. Some stiffness at knee.

Sept. 12th.—Considerable union at knee. "She can kick her leg up without using her hands."

Oct. 7th.—Firm union. "She can rest the weight of her body on the leg without pain." Starch bandage was applied.

Dec. 8th.—Walks easily without a crutch, and brings her heel to the ground.

Jan. 2d, 1862.—Discharged, well.

Case IV.—Patient, J. G., aged 37, entered the Hospital March 16th, 1861. She was a miserable looking, debilitated, weak-minded, scrofulous person, who had apparently been under very unfavorable circumstances before admission. At the previous Christmas, after exposure, she had pain in several joints and abscesses about the right elbow and knee. At the time of entrance, the left knee was much swollen and stiff. The tibia was dislocated inwards and the joint very tender.

March 27th.—A large abscess on the outside of the left thigh, a little above the knee, was opened. ℞. Quiniæ sulphat., gr. ij., t. d.

April 13th.—No improvement. The knee is still very painful.

May 11th.—Patient would not consent to amputation. Excision was advised.

Operation by Dr. Clark. Patient was etherized. The knee-joint was opened in the usual way. A section, one and a quarter inches thick, was sawed from the condyles of the femur; and a section, a quarter of an inch thick, from the head of the tibia. The cartilages were extensively diseased, and the tibia was found dislocated backwards. The flaps were united by sutures. The limb was placed in a well-padded, straight splint.

18th.—The limb is maintained in good position, but there is no union in wound. House diet. Ale.

June 7th.—Exuberant granulations over wound, which is wholly open, the bones moving freely on each other, and at times being considerably displaced.

29th.—General condition improving.

July 5th.—Limb placed in a Liston's splint.

15th.—Some stiffness observed.

August 1st.—Wound nearly closed. Some union at anterior sur-

face of the bones. The limb was placed in a resection splint, consisting of a well-padded iron framework, the femoral and leg portions connected by hinges, a screw beneath the ham regulating the position and direction of the portions of the splint.

Sept. 21st.—Considerable stiffness, but union not firm. Starch bandage was applied.

October 26th.—The leg was firmly united with the thigh. Discharged, well.

WEANING.

[Read before the Norfolk (Mass.) District Medical Society, January 16th, 1867, by a Member of the Society and communicated for the Boston Medical and Surgical Journal.]

WEANING is a subject of little importance, if we may judge from the very limited attention given to it by medical writers. One looks over "the books" and journals, in dismay, when he would give an answer to the common question, "when shall I wean my baby?"

There are some young mothers who willingly stop nursing at the very earliest moment they can have the doctor's sanction for it, and are still better pleased if they are advised not to allow the breasts to be drawn at all. There is a much larger class, who, for various reasons, wish to nurse as long as they can; and, therefore, always represent their health, in reference to lactation, to be quite as good as it really is.

There is need that we have an opinion in this thing; and if the practitioner would decide wisely between the tendency to too little, and the tendency to too much nursing, and be ready to exert a controlling influence "on a subject that is oftener made a matter of convenience than of principle," he should have in his own mind some settled maxims or some definite plan.

The habits of life in the family, the customs of society, and the methods of education, as it is called, under which women are now brought up, seem to be cultivated, as with a set purpose, to incapacitate them to nourish their own offspring; and this is true to an extent that is beyond description and deplorable in the last degree. In the practices of society touching the education of girls, there is hidden, but yet not half concealed, a conspiracy against infant life, more widespread and more fatal than the decree of Herod of old. To prolong lactation, with such material for mothers, is cheating ourselves and the child, unintentionally, but none the less really, and is injuring the mother; and it ends too often in that formidable condition of mind and body, described by Copland under the head of "undue lactation."

It is often said that, if a child is not vigorous, its weaning should be delayed, if possible. I cannot but think that this view of the question has been held up too much, and has often led astray. In

our anxiety to sustain a sickly child (too often an only one), we forget to scrutinize carefully enough the mother's condition. Many an infant has, by advice, been carried into the hot season, tugging at a breast likely to fail it in the time of its extremity, and, therefore, absolutely more dangerous to its welfare than all the hazards of an earlier weaning.

If a child has been fed at the breast for months, and is only poorly, it is but fair to inquire carefully into the mother's condition, especially as to the quantity and quality of the milk, for it is probably quite time that the child be weaned, or put to another nurse. At any rate, let there be caution how lactation is prolonged *because* the child is not doing well. "Small and weakly infants," says a writer seventy years ago, "if rather feeble than ill, are oftentimes benefited by being weaned; they should, therefore, about this age [12 months] be taken from the breast, instead of being, on account of weakness, nourished much longer in that way; a trial of such a change should at least in most instances be made."

But I must confine myself (for the sake of your patience) chiefly to these two topics, viz.—At what age, as a general rule, should a child be weaned, and at what season of the year?

Dr. Copland says: "The termination of the period of lactation becomes necessary when the infant is sufficiently old to be fed by many of the usual articles of diet, when it is from eight or nine to fifteen months old, and when it has four or six teeth, or more."

Dr. Maunsell says: "The time of weaning should be that indicated by nature, that is to say, between the seventh and twelfth month, in ordinary cases; when, by providing the child with teeth, she furnishes it with the means of obtaining nourishment from substances of a somewhat solid form."

Dr. Donné says: "It is ordinarily about the age of twelve or fifteen months that weaning should take place."

Dr. Tanner says: "The proper time for weaning healthy children is between the ninth and twelfth month."

Dr. Dewees says: "When the child has arrived at the eleventh or twelfth month of its age, it is generally thought to be sufficiently advanced to be taken from the breast."

Dr. James Jackson says: "Children are benefited by living principally on the breast for twelve months."

Sir John Forbes says: "The time of weaning ought to be determined chiefly by two circumstances—the health and state of the mother, and the development and health of the child. When the health of the mother continues perfect and the supply of milk abundant, weaning ought not to take place until the development of the teeth shows that a change of food is required. This usually happens about the ninth or tenth month."

Dr. James Stewart says: "As a general rule, the child ought not to be kept at the breast beyond a year; it may also, in the majority of instances, be weaned about the ninth or tenth month."

Dr. Gream says: "The child may be weaned between the eighth and tenth month."

Dr. Underwood says: "We shall not be very wide of the order of nature, if we say that a child ought not to be weaned much earlier than a twelvemonth old."

Dr. Condie says: "The proper period for the child to be taken from the breast may be stated, as a general rule, to be at the end of a year."

These are all the authors I have seen.

But I have additional authority in the testimony of members of this Society, whose wisdom and experience must not be lost. The first says: "I think a full year as good an age as any for weaning. I have known and directed children to be weaned at almost every age, and they have done well. Various causes may exist which render it necessary; as, for example, deficiency of nourishment on the mother's part, difficulty in assimilating the milk on the part of the infant, pregnancy or failing health in the parent; or any combination of circumstances, when it is apparent that the child or mother is not thriving. In many of these cases a wet nurse is the best substitute; but if, for any cause, not procurable, I do not hesitate to advise weaning, if I can depend on the judicious management of the mother or attendants in the matter of quantity and quality of the food, and attention to the cleanliness of the utensils in which the food of the child is prepared."

Another says: "My rule with regard to weaning has been something like this: if the child is near a year old in May, the first part of the month, is healthy and well advanced in teething, I allow weaning; but if not, I advise nursing till after dog days. I do not like to have a child getting its teeth at the age of fifteen to twenty-one months, in July and August, *recently weaned.*"

The third says: "The first consideration is the health and well-being of the mother, as her life is the most valuable, and should not be put in jeopardy. If she bears nursing *well*, it may be continued from twelve to eighteen months, the time of weaning to be regulated by the condition of the child and the season of the year."

The fourth says: "A child should be weaned, as a general rule, when it is from nine to twelve months of age."

The fifth says: "A healthy child should be weaned at the age of one year."

The sixth says: "I should say nine months, supposing the child to be vigorous and healthy."

The seventh says: "Theoretically, nine months is the proper time; practically, seasons taken into account, nine to twelve months (or a few weeks more in exceptional cases), is quite the *reasonable* period."

The eighth says: "My impression is that it is well to nurse children more than one year; but we must be governed somewhat by the appearance of the teeth. As you are seeking the opinion of the expe-

rienced, I will add that I recollect once hearing the late Dr. George Hayward say that, in children of scrofulous tendencies, the disease was likely to be developed under prolonged nursing."

The ninth says: "I believe it is best that a child should be weaned at from ten months to a year old. It is not unfrequently an injury to both mother and child to continue lactation to fifteen or eighteen months."

I have one more authority on this point, and it is one of much value because it represents British medical opinion, and fixes the term of lactation independently of the condition of the mother. Before Victoria's first born appeared, Sir Joshua Waddington prepared a code of rules for the government of the royal nursery, and they were approved by the medical staff of Her Majesty. In these rules it is declared, that it is generally advisable that an infant be weaned "at the age of nine months."

The best average I can make, from all these authorities, gives almost eleven months as the approved term for lactation. But eleven months is a longer period than I would have, as a rule, in the present state of society. Children weaned at nine months do as well as those weaned at twelve months, for aught I have discovered. And if we fix nine months as the proper term of lactation, one, two or three months will, in many instances, be added to it, from a variety of causes; and if a longer term than nine months is named, just as much will be added to that, and lactation will be prolonged to a very doubtful period.

I suggest nine months—not as prefigured by gestation, nor by anything else, but—simply as the reasonable term for nursing.*

In support of a shortened term of lactation, I have an impression, strong enough to influence me a good deal, that children nursed beyond one year—above all for two years—are not as likely to do well as those weaned earlier; and that scrofulous or puny children are not benefited by an extended term of nursing, especially of their own mothers; and, on the other hand, that mothers are generally benefited by a brief term of lactation.

The advancement of the teeth is generally made an item in deciding the question of weaning. The age for the development of the canine teeth—the most dreaded period of dentition—is about the eighteenth month, and to wait for the appearance of these teeth would be to establish an unreasonable term of lactation.

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* Since this paper was read, a studious friend has sent me the following:—"It is generally recognized that the healthiest children are those weaned at nine months complete. Prolonged nursing hurts both child and mother; in the child, causing a tendency to brain disease—probably through disordered digestion and nutrition; in the mother, causing a strong tendency to deafness and blindness. It is a very singular fact, to which it is desirable that attention were paid, that in those districts of Scotland, viz., the highland and insular, where mothers suckle their infants fourteen to eighteen months, deaf-dumbness and blindness prevail to a very much larger extent among the people than in districts where nine and ten months is the usual limit of the nursing period.—Dr. Wm. Farr *on the Mortality of Children.*

On this point of the importance of the development of the teeth, writers are very indefinite; and each writer who does specify what teeth he would have the child exhibit at the time of weaning, states that children usually show the specified teeth at about the age he has named as the fit time to stop lactation; so that in fact the cutting of the teeth comes to be a part of a cautious theory, but is in reality of very little consequence in deciding whether a child should be weaned or not.

Practically, children, like some adults, get on comfortably with few teeth or even none. And I have long inclined to the opinion that the *late* development of the teeth is not unfavorable to the well-being of the child. This opinion will, perhaps, be sustained. In defence of it I cannot here enlarge, but will mention the facts in one family. Two brothers, the only children, now seven and nine years old, and always in good health, were both weaned, of necessity, before they were nine months old; neither child had a tooth till full fifteen months old, and both had a very easy dentition.

But to our second topic: at what season of the year should a child be weaned?

The writers who have condescended to treat of weaning, say very little about the season of the year. Tanner and Copland, Stewart and Underwood, Gream and Maunsell, say nothing about it. Dr. Donné (writing in Paris) says: "Season is of little consequence for children that are well and of good constitution."

Dr. Condie says: "Spring or autumn should invariably be made choice of for the period of weaning."

Dr. James Jackson says: "The safest period for weaning is from the middle of October to the middle of March; provided they be not weaned under ten months after December, under eleven after January, nor under twelve after February."

Dr. Dewees divides the year into three periods for weaning, viz., the convenient, the inconvenient, and the improper season. The moderate months, March, April, May, June, October and part of November, are the convenient season. The cold months, part of November, December, January and February are the inconvenient season. The hot months, July, August and September are the improper season.

But, on this point of the season of the year, I have the privilege to introduce again the testimony of my associates.

The first says: "On this point I have not much hesitation; I prefer October. The nights are not then too long or too cold. It is much easier, therefore, than later, and in the winter. I think better for the child, inasmuch as it gives a longer period for it to become accustomed to its new food before the approach of the hot weather renders it prone to those gastric disturbances which so often end in cholera infantum."

The second says: "I never advise weaning in July, August or

September, if not obliged to do so. I generally, so far as *the child* is concerned, advise—if the age, state of health and stage of teeth are favorable—the weaning of a child in April or May, or waiting until October or November, as near as may be."

The third says: "If a child is not more than a year old in the spring, it should be nursed until the middle of autumn, which is the best season for weaning. If the child is one and a half year old in the spring, in good health, and having the usual supply of teeth at that age, it should be weaned."

The fourth says: "At any time except in the months of July and August, in which if children are weaned they are liable to be attacked with bowel complaints. Ladies rather prefer the early part of June and the last part of September, and avoid, if possible, the extreme weather of winter."

The fifth (with characteristic brevity) says: "Either after the warm season has passed, or before it has commenced. Of the two, I prefer the former."

The sixth says: "A child should not be weaned between the first of May and the middle of October following. This is my general rule, but there are cases which forbid its adoption. When the mother's health or the digestion of the child requires weaning, the season of the year is not to be considered; but in such cases greater care will be required for the preservation of the health of the child. If a child be a year old on the first of May, he should be weaned in April; if after that, he should nurse till October."

The seventh says: "For myself, I have always advised postponing weaning, otherwise suitable, till the winter months commenced, or at least till the middle of October, when circumstances required earlier than the first named time. For instance, a child has reached nine months in the middle or last of summer; I advise deferring weaning (complete weaning) till November or December, if mother and child *agree*. That is, I prefer a few weeks, or months, longer than nine months, to a complete change in summer or fall. Weaning after the end of February always seemed to me to be more risky than before that time—a few more weeks of age not compensating for the greater risk."

The eighth says: "As to the season of the year, we should avoid those months when diseases of the bowels prevail. If I saw any good reason to advise weaning, I should not be prevented from doing so by the consideration of the season."

The ninth says: "The season most favorable for weaning I believe to be from the last of October to the middle of December. Next to that I prefer first, January; secondly, February; thirdly, March; fourthly, April; in short, giving preference to the months in the order in which they are remote from the next hot season, when children, who are not accustomed to feeding, are so much more liable to obstinate diarrhœa and cholera infantum."

The testimony now presented, both of authors and of associates, is strong and decisive against weaning in hot weather; and it points clearly to the late fall as the best period for weaning.

The suggestions of Dr. Dewees, spoken of before, which divide the year into a convenient, an inconvenient and an improper season, were based on a large and careful observation, and are well worth remembering. If we look, however, for a formula on the season, we shall hardly find anything more concise than the words of one of our number already quoted: "either after the warm season has passed, or before it has commenced. Of the two, I prefer the former."

But in this evidence some doubt appears about weaning in the spring.

I will only add, for myself, that (so strong is my conviction that much nursing is not well borne by the mothers of this day) I would not hesitate to wean in the spring. If a child is nine months old early in May, I would advise that it be weaned, unless its mother exhibited uncommon capacities as a nurse. But each case of weaning, like each case of sickness, is to be considered and managed by itself, and not to be disposed of in rigid accordance with any fixed rules or maxims.

MENTAL TOXICOLOGY.

[Concluded from p. 246.]

A COMPARISON of these illustrations will warrant the conclusion, I trust, that weakness of the presentative faculty—implying limitation in the range of ideas, or ignorance—results in a corresponding feebleness in the regulative faculty, or common sense. The removal of that control lets loose the imagination, which becomes morbid, because fear is twin sister of ignorance. As the emotions are determined by the preceding processes of cognition, they become roused into passions, which prevent a deliberate act of will, but excite a "blind tendency to act"—or desire—which manifests itself as an acute mental neurotic poison, acting through the cerebro-spinal system, in the modified character of morbid sympathy and imitative impulse. "The tendency of advancing civilization," says Buckle, "is to invest the reasoning powers with that authority which, in an early stage of society, the imagination exclusively possesses; but even in this age it has far too much power."

Dr. Taylor remarks that "most poisons, when their effects are not rapidly manifested, . . . are capable of slowly undermining the powers of life, and killing the patient by producing emaciation and exhaustion."

In illustration of what may be called chronic mental poisons, I will refer to premature and excessive use, or abuse, of the mind, acting through the cognitive faculty upon the vital process of innervation—

and also to mental influences of a depressing character, especially such as result in nostalgia, as that serves in illustration. The latter appear to act more especially through the emotions, or the "phenomena of pain," upon the vital process of nutrition.

In illustration of premature and excessive mental labor combined, I will quote from the words of Dr. Ray on "Mental Hygiene"—a book which should be adopted as a standard reader in our public schools, so that the inculcation of its principles may influence another generation to practise what the present seems to ignore.

"How much a man may use his brain without endangering its health, is a question which admits of no definite answer, because it depends much on the original stamina of the individual and the intensity of his application. . . . After making all allowance for these differences, I think we may say that few can exceed six hours a day of close mental application without endangering the health. . . . . Men who have been long accustomed to write books, and experience a certain pleasure in the exercise, unite in declaring that five or six hours a day in the labor of composition cannot be profitably exceeded. According to the chemical experiments of Professor Houghton, of Trinity College, Dublin, respecting the relative amounts of physical exhaustion produced by mental and manual labor, two hours of severe study consume as much vital force as is abstracted by an entire day of mere manual labor.

"Sir Walter Scott, than whom few literary men have accomplished a greater amount of intellectual labor, by reason of a naturally strong constitution, good habits of exercise and recreation, emphatically declared that six hours a day was the utmost limit of his task work; and the correctness of his statement was painfully verified in the latter part of his career, when the desire of retrieving his fortunes induced him to exceed this stint. The melancholy result is known to every one, and it forms a chapter in literary history unsurpassed by any other in its deep, tragic interest." He died of paralysis. . . . "Unless, therefore, we greatly misapprehend the nature of the connection between mental activity and the organic condition of the brain, we have a right to conclude that the youthful powers may not be less severely tried by five or six hours study than the adult mind by the practice of writing for the same period. But this is not all. The young and the adult brains possess very unequal capacities of application and endurance. . . . . To suppose the youthful brain to be capable of an amount of task-work which is considered an ample allowance to an adult brain, is simply absurd, and the attempt to carry this folly into effect must necessarily be dangerous to the health."

This absurd folly is the practical system of education in the city of Boston and throughout New England. The youthful mind is forced into a state of the highest activity for five and six hours daily for years in succession. The Sabbath, even, is not a day of mental

rest. Most frequently additional tasks of mental labor are daily required out of school hours at home. That children survive this form of poisoning, only illustrates the influence of habit on poisons. Dr. Tyler says: "Habit, it is well known, diminishes the effects of certain poisons. . . . . The same influence of habit is manifested in the use of . . . . strychnia and other alkaloids." Children who may be salutarily obtuse, and who are vigorous in recreation, probably will survive; but too many sensitive and ambitious children, stimulated often by mistaken parents to renewed exertions, have their names either recorded in flattering obituaries, or in the melancholy annals of our public institutions.

Epilepsy, chorea, and a nervous erethism which is the vanguard of hosts of disease, are among some of the effects of chronic poisoning of this character. As the substance of the brain is consumed by every thought, emotion, and exercise of the will, there is continually during wakefulness a constantly progressing destructive metamorphosis of nerve cells in the brain, depending upon the activity of the mental faculties. The balance between destruction and repair is made up by the process of nutrition, and, in most part, during the hours of sleep.

Dr. Anstie remarks that "a paresis of the vaso-motor nerves of the cerebral arteries is produced by excessive mental exertion"—being dilated, therefore, they passively retain instead of actively contracting upon the vigilant current—and, as Dr. Hammond states, "wakefulness is produced by an increased amount of blood attracted to the brain by long-continued or excessive mental exertion."

This fatigue, or rather paralyzing effect of chronic mental poisoning, may be so long continued as to render it impossible for the tired brain to get repose. Insomnia, paralysis, and hosts of nervous disorders, are among some of the toxical effects of excessive mental exertion. Sir Walter Scott, Cowper, Southey, Sir William Hamilton, and multitudes of our once brilliant cotemporaries, whose palsied bodies are but the charnel houses of their souls, mournfully attest the startling truthfulness of the toxical effects of excessive mental exertion.

The taint of these poisons is hereditarily transmissible.

It is a question of the gravest import, in view of the close analogy between the effects of material and mental neurotic poisons, whether there may not be some similar responsibility accruing to the administration of each.

In the etiology of tuberculosis, Dr. Dobell speaks of the paralyzing effect upon the vital process of nutrition, of disappointment and nostalgia.

In illustration of some of the effects of nostalgia, I can perhaps do no better than to refer to an article which I read with bitter interest at the date and place of publication. I quote from the

Charleston, S. C., *Daily Courier*, Sept. 19, 1864. "There are Federal prisoners to the number of fifty thousand now literally languishing between life and death in the prisons of the Confederate States. Nostalgia, in its most repulsive feature of insanity, makes a Bedlam of lunatics of these prison pens, whose wretched inmates lie down at night exhausted with their meaningless words about home and exchange, to rise again in the morning and renew the same unintelligible jabbering. Death carried off at Andersonville alone, in the months of July and August, *eight thousand and eight* of these poor creatures. Human misery has reached its acme when insanity supervenes, and the loathsome disease which follows nostalgia is known to physicians to produce derangement."

In an essay upon Scurvy, Dr. Hammond says: "Nostalgia is a common exciting cause of scurvy. To this, and the despondency of mind which attends it, the attacks of scurvy which have proved so fatal to Arctic adventurers owe much of their violence."

These examples, I trust, attest to the toxical influence of the mind, as a chronic neurotic poison, "in slowly undermining the powers of life, and killing the patient by producing emaciation and exhaustion," or by its poisonous action upon the vital processes of nutrition and innervation. This effect may result, as in the last examples, from the influence of the depressing emotions, or "the phenomena of pain."

Examples of the influence of the mind as an irritant poison are of comparatively common occurrence. Dr. Murray remarks that, "the most baneful effects of emotion are to be found in those parts supplied by the sympathetic system, viz., in the viscera, and blood-vessels . . . . leading to disturbance in the processes of circulation, nutrition," &c. Dr. R. B. Todd says that, "upon none of the organic actions does emotion exert more influence than the circulation. In blushing, in the deadly paleness of the blood-deserted cheek, in the cold sweat of fear, in the depression of the heart by syncope, we find instances of action . . . . due to local changes in the capillary circulation by the power of emotion."

Terror, section of the cervical sympathetic, large doses of opium and alcohol, the poison of cholera, and the venom of serpents, all have analogous modes of paralyzing vaso-motor nerves by their toxical actions. The biliary secretion is stopped by the bite of venomous serpents. "The most rapidly fatal cases of cholæmic poisoning," says Dr. McLeod, "are due to paroxysms of mental emotion."

The poison of cholera suppresses the biliary function, while terror—which ignorance of natural laws engenders—is oftentimes far more efficient in the production of that disease than any general susceptibility of the digestive organs. The secretions may be increased, as is seen in the copious effusion of watery elements often-

times produced by terror. In a recent work entitled "Surgical Observations, with Cases," Dr. J. Mason Warren records an interesting case, "showing the powerful influence of fear in effecting the reduction of an apparently irreducible hernia, which had resisted all the ordinary means of treatment." The influence of terror upon sensation is familiar in the chill horror of fright. A "burning shame" is a trite phrase—or rather used to be before chorea lasciva became epidemic. It is said that the test for a thief in India consists in compelling the parties suspected to hold handfuls of rice in their mouths, and the offender is detected by the dryness of his mouthful.

The toxical influence of certain emotions will decompose the elements of bile and urine. Instances of nausea and vomiting caused by disgust are well known. Ovarian and uterine diseases, abortion and miscarriage, are among some of the most lamentable results of mental irritant poisoning. Shakspeare compares the effect of jealousy upon Iago to a corrosive mineral poison.

> "For that I do suspect the lusty Moor
> Hath leap'd into my seat, the thought whereof
> Doth, like a poisonous mineral, gnaw my inwards."

And also—

> "Dangerous conceits are in their natures poisons."

The application of antidotes requires a thorough knowledge of mental physiology, pathology and therapeutics, based on the principles of logical reasoning. If the melancholy results of statistics are correct, then must we believe that the principles of psychotherapy are but comparatively little understood in general practice. They teach that eighty per cent. of mental diseases *may* recover, if *promptly* recognized and correctly treated; whereas, the uniform result, deduced from the comparison of thousands of examples, *is*, that scarcely forty per cent. recover, but become chronic and a burden to the country, because the proper opportunity for treatment was either unrecognized or criminally employed in ignorant tampering. The words of Dr. Forbes Winslow are so appropriate in illustration, that I will close with a quotation from his "Lectures on Insanity":—

"We form but a low and grovelling estimate of . . . . the duties of our dignified vocation, if we conclude that our operations are limited to a successful application of mere physical agents. Many physicians of extensive practice are destitute of the ability of searching out and understanding the moral causes of disease. They cannot read the book of nature, ... in which will be found the most active and incessant principle of that frightful series of organic changes which constitute pathology. . . . . Many a disease is the *contre coup*, so to speak, of a strong moral emotion."

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 2, 1867.

FEMALE PRACTITIONERS OF MEDICINE.

We revert to this subject, as we find it still occasionally alluded to in various quarters.

To those whose idea of medical practice is that it consists in making a round of visits during certain convenient hours of the day, and prescribing elegant mixtures for chronic ailments, or lancing the gums of teething infants, the question whether the softer sex are competent to the work may seem easily answered in the affirmative. But, when one has tried the process for a few years, and felt the heavy burden pressing constantly upon his shoulders, and the strain upon the mental and physical energies, which, with the absorption of his time, often leaves little opportunity or inclination for the enjoyment of society or amusement, the subject becomes one which requires somewhat careful consideration. To recollect for a moment, the broken slumber, the warm bed left for a distant walk or ride in cold or storm, to be followed perhaps by hours spent by the bedside of suffering and danger; the morning's work begun with that fatigue with which the sons of toil are wont to end the day; the temptation to sympathetic feeling which duty demands shall be kept within stern control; the stubborn facts with which we have to deal, and which necessitate the strictness of logical inference, yielding no play to the imaginative or the fanciful, save to lead to error or delusion; the rough contact with the vulgar and the vicious as often as the favored intercourse of the refined; these things suggest at least a doubt.

But we live in a part of the world and in an age where and when everything that is established and recognized must be investigated anew—must show its credentials. Nothing must be taken for granted. That a course of action has not been tried is sufficient reason that, with or without reference to the fitness of things, it should be attempted. The rostrum and the pulpit have been graced by our sisters of the fairer sex, and now these latter demand admission to the ranks of peripatetic doctors.

From Hippocrates to the present day medicine has been mostly in the hands of men. Votaries of Lucina have indeed existed among women in all time, though generally in a subordinate position. Also while the medical art was confined to the Arabian school of physicians and the Roman Catholic Priests, midwifery was practised altogether by females, and continued in their hands till Ambrose Paré began its restoration to our profession. That obstetrics, while for that long period under the control of midwives, made no advances, we shall not use as an argument in this place, because, general education being usually denied to women at that time, it would be unfair to expect much of them in the way of scientific discovery. It is, then, altogether by *a priori* reasoning that we shall endeavor to draw our conclusions—not as to whether it be expedient that females should attempt the practice of medicine—but as to whether they will be likely to succeed.

We take the negative side, from considerations which we will endeavor briefly

but respectfully to present. First, a physiological obstacle has often been alluded to, viz., menstruation. That function occupying, we will say, from three to seven days, it follows that the adult female, before the period of the final cessation of the catamenia, is menstruating—when in health and not pregnant or nursing—from about one ninth to one fourth of her time, year in and year out. During the menstrual period, Michelet declares that the woman is an invalid, and should be treated as such. In this there is, perhaps, exaggeration. Yet there is a certain truth behind Michelet's theory, in that the menstrual condition verges closely upon, and easily crosses the line into the abnormal, and thus amounts to an impediment. The natural congestion of the genital organs during the catamenia, is with facility converted into a morbid one, and their general exaltation of function at that time renders them prone to disorder. A sudden chilling of the surface, or even of the extremities, is sufficient often, as we know, to arrest the menstrual flow, and to bring on a febrile condition, delirium, and even convulsions. During, then, from one ninth to one fourth of the active period of life, it is imprudent for the female to be exposed to those inclemencies of weather which, by night and by day, and for seven days in the week, it is the business of the medical practitioner to encounter.

But, further, just as in childbed the entire organization may be said to be in the puerperal state, so during the catamenia other and distant organs, as the brain, share in the menstrual condition with the uterine system. And the subject of this latter condition, if not an invalid as Michelet says, yet requires to be treated with extraordinary forbearance. She is often perverse in her feelings, her views of things are liable to be distorted, and her judgment to be less reliable than usual. Thus we argue that the menstrual state is liable to be an obstacle to the female practitioner, both objectively and subjectively.

But, if the female disciple of Hippocrates be married, she will be, we take it, as liable to family accidents as other women. Pregnancy, with its more or less enfeebling reactions, and burdensome disability, with its risks also to mother and fœtus from mental shocks; childbed, with its weeks of enforced inaction; the period of lactation, with its bondage to the claims of maternity; must, taken together, involve a year and a half or more of withdrawal from professional avocations. Such protracted withdrawal would be likely to break up the practice of any physician. In fact, we shall take it for granted that marriage would pretty much end the medical career of the female, and thus, from a business point of view, cause to be thrown away the years of preparation necessary for professional competency.

Secondly, that overflowing sympathy which is such an attractive characteristic of woman, and which renders her a gentle and devoted nurse, not only meeting but anticipating every want of the sick bed—that very excess of sympathy stands in the way of her efficiency as a physician. Even we, with our sterner natures, are often compelled to great efforts to subdue our feelings that calm reason may have sway; that we may decide coolly and deliberately on the measures best to be chosen; or, what is harder still, that we may preserve a masterly inactivity. The tendency of uncurbed sympathy is toward impatience of the slow action of remedies, toward frequent changes, and toward redundancy in the employment of them. Thereby nature is not given fair play, and the patient is the loser.

Thirdly, the peculiar characteristics of the female mind, we think, hardly afford scope for first-class attainments in either medical observation or practice. Here, however, we are not to permit our gallantry to be impeached by assuming the mental inferiority of woman. For the sake of the present argument we might even admit her intellectual superiority. It is sufficient for our purpose to claim that the feminine intellect is cast in a different mould from the masculine. We consider that both have their special merits and deficiencies, and are thus supplementary to each other. Among the special qualifications of the masculine mind we place logical solidity, and a certain grasp which gives the power of surveying a wide range of facts, of classifying them so as to assign to each its proper place and bearing, and of passing upon them, as it were, judicially. The female intellect, on the other hand, we hold to be more suggestive, quicker and more acute in its perceptions, and perhaps more intuitive. The latter seems to us allied in its workings to the poetic temperament, and even to genius; the former to the laborious plodding of talent. Now for observation of, and induction from medical facts, we do not want the creative genius even of a Milton, but rather the patient research and broad reach of the Baconian philosophy. And in the diagnosis of a case we require not the sparkle of inventive wit, but the careful collection, sifting and comparison of evidence indicative of the judicial mind. In both diagnosis and the selection of remedies, we particularly eschew impulsive judgments, and all "jumping at conclusions." And we beg the pardon of the fair sex if we intimate that to these errors they are gracefully prone.

Lastly, that nicer sense of delicacy which is the birthright of woman, and which we love to see her cherish, should, we think, interfere with her acquiring that knowledge of the human frame which is necessary to the medical practitioner, and oppose her familiar dealing with certain matters of daily medical experience; particularly when we remember that we have assumed to confine the list of female doctors to unmarried women. That female medical pupils should be instructed in common with students of the other sex is not to be thought of. Delicacy and even decency forbid it. Separate institutions would have to be established for their education. But, even then, we must say that the necessary curriculum of medical pupilage is such that we cannot think young girls would be elevated by it. To initiate them into the ghastly mysteries of the dissecting-room and dead-house, must blunt their natural refinement. To familiarize them with the anatomy and physiology of the male and female generative systems, together with the whole history of the relations of the sexes and with that of venereal diseases, we must believe would unsex them. Indeed, we are old fashioned enough to think that it is not well for them to know everything which their mothers do, and which matrons may learn without the suggestion of prurient imaginations. Nay, we are assured that the pure-minded girl instinctively feels that there are certain subjects which her maidenly dignity requires her to ignore.

In fine, to sum up our ideas on this subject in one sentence, we do not believe that women are adapted to the study and practice of medicine. If the reverse ever obtains, as where a woman has a masculine instead of a feminine cast of mind, it is, we think, but the old story of the exception proving the rule. We can neither legislate nor educate to cover exceptional cases.

THE status of the apothecaries of Massachusetts as it relates to the law for the sale of spirituous liquors, is ably set forth by Mr. S. M. Colcord before the "Joint Committee on Licenses of the Senate and House," and reminds us somewhat of the former position of the medical profession regarding anatomy. While there were no means of acquiring a knowledge of practical anatomy, except surreptitiously and in violation of law, yet malpractice resulting from ignorance of the structure of the human frame was severely punishable. It was necessary to dissect, and yet the means of dissection could not be legally obtained. So now, the apothecaries are under the daily necessity of dispensing spirituous liquors, while their so doing is in contravention of the prohibitory law, and renders them liable to severe penalties. That pure wines and liquors are often necessary in the treatment of disease, and sometimes indispensable to the preservation of life, is a point which requires no discussion in these pages.

WE have received a specimen of "syrup of the phosphates of iron, quinia and strychnia," from Mr. G. F. H. Markoe, a highly reliable "chemical pharmaceutist," associated with Mr. J. T. Brown, Washington St., corner of Bedford St.

With reference to this article, the Editor of the *New York Medical Journal* says:—

"Dr. Lyons has for some time past employed, with, he conceives, very important therapeutic results, this powerful tonic combination, for which the profession is mainly indebted to the late Dr. Eaton, Professor of Materia Medica in the University of Glasgow, and Professor Aitken, of the Royal Victoria Hospital, Netley."

The last edition of Aitken's "Practice of Medicine" gives the following formula for the preparation of this tonic:—

"℞. Ferri. sulph., ℥v.; sodæ phosph., ℥i.; quiniæ sulph., grs. cxcii.; acid. sulph. dil., q. s.; aquæ ammoniæ, q. s.; strychniæ, gr. vi.; acid. phosph. dil., ℥xiv.; sacchar. alb., ℥xiv. Dissolve the sulphate of iron in one ounce of boiling water, and the phosphate of soda in two ounces of boiling water. Mix the solutions, and wash the precipitated phosphate of iron till the washings are tasteless. With sufficient diluted sulphuric acid, dissolve the sulphate of quinia in two ounces of water. Precipitate the quinia with ammonia water and carefully wash it. Dissolve the phosphate of iron and the quinia thus obtained, as also the strychnia, in the diluted phosphoric acid; then add the sugar, and dissolve the whole and mix without heat. The above syrup contains about one grain of phosphate of iron, one grain of phosphate of quinia, and one thirty second of a grain of phosphate of strychnia in each drachm. The dose might therefore be a teaspoonful three times a day."

Mr. Charles Bullock, in the *American Journal of Pharmacy* for March, 1867, describes what he considers an improved method of making the combination.

WE have received from Dr. Jos. M. Toner, 350 Pennsylvania Avenue, Washington, D. C., a circular referring to a proposed "Biographical Dictionary of Deceased American Physicians." Any one having in his possession obituary notices or other information concerning deceased American practitioners of regular medicine would confer a favor on Dr. Toner by sending him such materials for his work.

DELEGATES to the American Medical Association are reminded that the annual meeting for 1867 takes place at Cincinnati, on Tuesday of next week, May 7th, at 11, A.M.

New Medical Journal in Kansas.—We have received the prospectus of a new monthly medical Journal to be published in Leavenworth, Kansas, under the name of the *Leavenworth Medical Herald*. The Editors are C. A. Logan, M.D., and T. Sinks, M.D. Each number will contain forty-eight pages of reading matter, and the journal is intended to be the organ of the extreme Western States. The editors have our most cordial sympathy in their undertaking, which certainly indicates a most enterprising spirit.

Middlesex South District Medical Society. MESSRS. EDITORS,—At the annual meeting of the Middlesex South District Medical Society, held at Waltham, April 17th, the following officers were elected:—*President*, Samuel Richardson, M.D. *Vice President*, Henry Cowles, M.D. *Secretary*, J. T. G. Nichols, M.D. *Treasurer*, B. F. D. Adams, M.D. *Supervisors*, Drs. L. E. Partridge, J. Pratt, Josiah Bartlett. *Censors*, Drs. M. Wyman, J. L. Sullivan, L. B. Morse, R. S. Warren, C. H. Allen. *Commissioner on Trials*, Dr. Theo. Kittredge. *Councillors*, Drs. Anson Hooker, Enos Hoyt, T. P. Robinson, W. W. Wellington, J. F. Wakefield, J. C. Harris, J. C. Dow, E. F. Barnes, A. C. Livermore, A. C. Webber, Levi Goodnough, Howland Holmes. *Delegates to American Medical Association*, Drs. L. B. Morse, Edgar Parker, J. L. Sullivan, L. E. Partridge, A. W. Whitney, Anson Hooker, Augustus Mason, Morrill Wyman, J. Appleton, R. L. Hodgdon, Jeffries Wyman, J. R. Morse.

J. T. G. NICHOLS,
Secretary.

Cambridge, April 23, 1867.

ALBERT DAY, M.D., the organizer and successful manager of the Washingtonian Home in this city, has been appointed Superintendent of the State Inebriate Asylum at Binghamton, N. Y. The trustees have been fortunate in securing the services of so able a man. It is hoped that the institution will be opened about the first of May.

PROF. WM. WARREN GREENE, of Berkshire Medical College and of the Medical School of Maine, has received the appointment of Professor of Surgery in the University of Michigan. It is doubtful whether he accepts the appointment.

AT the close of the first course of lectures at the Humboldt Medical College, in St. Louis, Mo., on the 11th ult., four gentlemen received the degree of M.D.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 27th, 1867.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	36	33	69
Ave. mortality of corresponding weeks for ten years, 1856—1866	40.4	39.7	80.1
Average corrected to increased population	00	00	87.2
Deaths of persons above 90	0	0	0

PAMPHLETS RECEIVED.—A Theory of Inflammation—Its Cause, Course and Rationale of Treatment. By Nelson L. North, M.D., New York.

DEATHS IN BOSTON for the week ending Saturday noon, April 27th, 69. Males, 36—Females, 33. Abscess, 2—accident, 1—apoplexy, 1—congestion of the brain, 1—disease of the brain, 6—consumption, 15—convulsions, 1—debility, 1—dropsy, 1—dropsy of the brain, 1—erysipelas, 1—scarlet fever, 2—typhoid fever, 2—gastritis, 1—infantile disease, 6—disease of the kidneys, 1—laryngitis, 1—congestion of the lungs, 2—gangrene of the lungs, 1—inflammation of the lungs, 9—marasmus, 1—pleurisy, 1—pyæmia, 1—smallpox, 3—syphilis, 1—unknown, 5.

Under 5 years of age, 22—between 5 and 20 years, 8—between 20 and 40 years, 18—between 40 and 60 years, 9—above 60 years, 12. Born in the United States, 52—Ireland, 11—other places, 6.